

Federal Aviation Administration, DOT

§ 25.1399

(3) *Intensities in overlaps between adjacent signals.* No intensity in any overlap between adjacent signals may exceed the values given in § 25.1395, except that higher intensities in overlaps may be used with main beam intensities substantially greater than the minima specified in §§ 25.1391 and 25.1393 if the overlap intensities in relation to the main beam intensities do not adversely affect signal clarity. When the peak intensity of the forward position lights is more than 100 candles, the maximum overlap intensities between them may exceed the values given in § 25.1395 if the overlap intensity in Area A is not more than 10 percent of peak position light intensity and the overlap intensity in Area B is not greater than 2.5 percent of peak position light intensity.

§ 25.1391 Minimum intensities in the horizontal plane of forward and rear position lights.

Each position light intensity must equal or exceed the applicable values in the following table:

| Dihedral angle (light included) | Angle from right or left of longitudinal axis, measured from dead ahead | Intensity (candles) |
|----------------------------------|---|---------------------|
| L and R (forward red and green). | 0° to 10° | 40 |
| | 10° to 20° | 30 |
| | 20° to 110° | 5 |
| A (rear white) | 110° to 180° | 20 |

§ 25.1393 Minimum intensities in any vertical plane of forward and rear position lights.

Each position light intensity must equal or exceed the applicable values in the following table:

| Angle above or below the horizontal plane | Intensity, <i>I</i> |
|---|---------------------|
| 0° | 1.00 |
| 0° to 5° | 0.90 |
| 5° to 10° | 0.80 |
| 10° to 15° | 0.70 |
| 15° to 20° | 0.50 |
| 20° to 30° | 0.30 |
| 30° to 40° | 0.10 |
| 40° to 90° | 0.05 |

§ 25.1395 Maximum intensities in overlapping beams of forward and rear position lights.

No position light intensity may exceed the applicable values in the fol-

lowing table, except as provided in § 25.1389(b)(3).

| Overlaps | Maximum intensity | |
|---|-------------------|------------------|
| | Area A (candles) | Area B (candles) |
| Green in dihedral angle <i>L</i> | 10 | 1 |
| Red in dihedral angle <i>R</i> | 10 | 1 |
| Green in dihedral angle <i>A</i> | 5 | 1 |
| Red in dihedral angle <i>A</i> | 5 | 1 |
| Rear white in dihedral angle <i>L</i> | 5 | 1 |
| Rear white in dihedral angle <i>R</i> | 5 | 1 |

Where—

(a) Area A includes all directions in the adjacent dihedral angle that pass through the light source and intersect the common boundary plane at more than 10 degrees but less than 20 degrees; and

(b) Area B includes all directions in the adjacent dihedral angle that pass through the light source and intersect the common boundary plane at more than 20 degrees.

§ 25.1397 Color specifications.

Each position light color must have the applicable International Commission on Illumination chromaticity coordinates as follows:

(a) *Aviation red*—

y is not greater than 0.335; and
z is not greater than 0.002.

(b) *Aviation green*—

x is not greater than $0.440 - 0.320y$;
x is not greater than $y - 0.170$; and
y is not less than $0.390 - 0.170x$.

(c) *Aviation white*—

x is not less than 0.300 and not greater than 0.540;
y is not less than $x - 0.040$; or $y_0 - 0.010$, whichever is the smaller; and
y is not greater than $x + 0.020$ nor $0.636 - 0.400x$;
Where y_0 is the *y* coordinate of the Planckian radiator for the value of *x* considered.

[Doc. No. 5066, 29 FR 18291, Dec. 24, 1964, as amended by Amdt. 25-27, 36 FR 12972, July 10, 1971]

§ 25.1399 Riding light.

(a) Each riding (anchor) light required for a seaplane or amphibian must be installed so that it can—

(1) Show a white light for at least 2 nautical miles at night under clear atmospheric conditions; and